State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-232
Relating to Exemptions Under Section 27156
of the Vehicle Code

TRADEX INTERNATIONAL "FUEL KING" DEVICE

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(e), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt add-on and modified parts from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Tradex International has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the "Fuel King" device.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-5, the Air Resources Board finds:

- 1. The "Fuel King" is an add-on device that is attached to the fuel line in a motor vehicle.
- 2. The fuel line is part of the required motor vehicle pollution control system.
- 3. The "Fuel King" is intended for use with a required pollution control system.
- 4. The "Fuel King" by being installed in the fuel line alters the original design of a motor vehicle pollution control system.
- 5. The "Fuel King" is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by 13 CCR Section 1900(b)(1).
- 6. The "Fuel King" does not reduce the effectiveness of any required motor vehicle pollution control device.
- 7. The Air Resources Board, in the exercise of technical judgement, is aware of no basis on which the "Fuel King" will provide either a decrease in emission or an increase in fuel economy.
- 8. It has not been determined what effect use of the "Fuel King" may have on any warranty, either expressed or implied, by the manufacturer of a motor vehicle on which the device is installed.

- 9. The "Fuel King" is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
- 10. The Air Resources Board by granting an exemption to the Tradex International for the "Fuel King" does not recommend or endorse in any way the "Fuel King" for emissions reduction, fuel economy, or any other purpose.

IT IS HEREBY RESOLVED that the "Fuel King" is exempt from the prohibitions of Vehicle Code Section 27156 for installation on 1991 and earlier model-year diesel-powered vehicles subject to the following conditions:

- 1. This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.
- 2. No changes are permitted to the device as described in the application for exemption. Any changes to the device, applicable model year, or other factors addressed in this order must be evaluated and approved by the Air Resources Board prior to marketing in California.
- 3. Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in the Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any component of the product as an individual device.
- 4. Any oral or written references to this Executive Order or its content by the Tradex International, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any fuel economy or emissions reduction claims for the "Fuel King" and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.
- 5. No claim of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination after hearing that grounds for revocation exist.

Executed at El Monte, California, this $\frac{28}{48}$ da

day of August, 1991.

R. B. Summerfield
Assistant Division Chief

Mobile Source Division

State of California AIR RESOURCES BOARD

EVALUATION OF TRADEX INTERNATIONAL'S "FUEL KING" DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS EVALUATION OF TRADEX INTERNATIONAL'S "FUEL KING" DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Division State of California Air Resources Board 9528 Telstar Avenue El Monte, CA 91731-2990

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Tradex International (Tradex), of 4644 West Jennifer, #101, Fresno, CA 93722, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the "Fuel King" device. The device is designed for installation on 1991 and older model-year diesel powered vehicles.

Previously the Air Resources Board (ARB) exempted four similar devices: the "Moleculator Fuel Energizer" and the "Fuel Dominator" by Internal Energy Management Corporation, the "Top Eliminator" by Top Eliminator, Inc., and the "Vitalizer" by P.A.C.E. Setters of America. Based on the engineering evaluation of the device and exemptions issued for other devices that operate in a manner similar to the Fuel King, the staff believes that the Fuel King will not have any adverse effects on the exhaust emissions from diesel powered vehicles.

The Staff recommends that the Fuel King device be exempted from the prohibitions in Vehicle Code Section 27156 for 1991 and older model-year diesel powered vehicles and Executive Order D-232 be issued.

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EVALUATION OF TRADEX INTERNAIONAL'S "FUEL KING" DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Tradex International (Tradex), of 4644 West Jennifer, #101, Fresno, CA 93722, has applied for exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the "Fuel King" device. The device is designed for installation on 1991 and older model year diesel powered vehicles.

The applicant submitted drawings and specifications of the device for evaluation.

II. CONCLUSIONS

Previously the Air Resources Board (ARB) exempted four similar devices: the "Moleculator" and the "Fuel Dominator" by Internal Energy Management Corporation, the "Top Eliminator" by Top Eliminator, Inc., and the "Vitalizer" by P.A.C.E. Setters of America. Based on the engineering evaluation of the device and the exemptions issued to other devices that operate in a manner similar to the Fuel King, the staff believes that the Fuel King will not have any adverse effects on the exhaust emissions from diesel powered vehicles.

III. RECOMMENDATION

The staff recommends that Tradex be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for the Fuel King device and that Executive Order D-232 be issued.

IV. <u>DEVICE DESCRIPTION</u>

The Fuel King is a cylindrical shape device designed for installation in series with the vehicle's fuel line. The outer housing of the Fuel King is stainless steel or aluminum and contains magnets in combination with a stream-interruptor. The Fuel King is 100 mm long with a core length of 65 mm, and an inner core diameter of 23 mm. The device's installation instructions and drawings are shown in Appendices A and B, respectively.

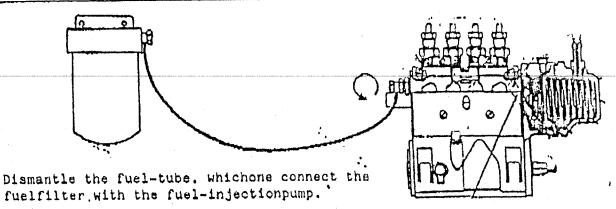
V. DISCUSSION

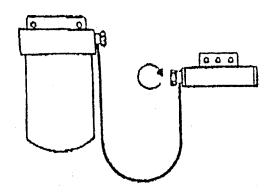
Tradex claims that when the Fuel King is installed on a vehicle's fuel line, the stream-interruptor will create turbulence against the surface of the magnets as the diesel fuel goes through the device. According to Tradex, this action creates an electron flow which increases the oxidation between hydrocarbon fuel and oxygen. Realignment of the molecules occur causing an optimum combustion of the fuel. The system also creates a better electric conduction resulting in a finer spray of the fuel in the combustion chamber. Tradex further claims the Fuel King device to reduce soot output by 50 to 70 percent, reduce fuel consumption by 6 percent, shorten acceleration time and lengthen motor oil life. The ARB did not perform any testing on the device to substantiate the claims made by the manufacturer. However, it is the staff's opinion that the technical principles underlying the stated function of the device are not capable of producing any effects on emissions and fuel economy.

The ARB previously exempted four similar devices; "Moleculator Fuel Energizer" and "Fuel Dominator" by Internal Energy Management Corporation, "Top Eliminator" by Top Eliminator, Inc., and "Vitalizer" by P.A.C.E. Setters of America. Because of previous exemptions issued to similar devices with the same operating principle as the Fuel King and the fact that qualifying for an exemption is based on not adversely affecting exhaust emissions, the staff recommends that Tradex be granted an exemption as requested.

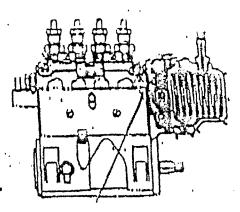
APPENDICES

ASSEMBLY OF THE FUEL KING ON A DIESELENGINE.

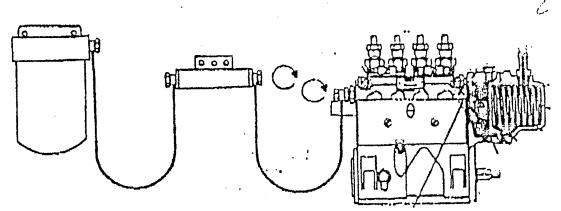




Assemble the dismantled tube to the Fuel King.



Ψ,



Make a new tube with two right connections and assemble this one between the Fuel King and the fuelpump.

Deventilate the fuelsystem.

CHECK THE SYSTEM ON LEAKAGE.

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